Part 8 - Iterative Constructs

I.Objective Type Questions:

1. How many times the following loop will execute?
```
int counter = 1;
do
{
   System.out.println(counter);
}
while (++counter < 5);
```

   A) 4
   B) 5
   C) 6
   D) Infinite time

2. How many times the following loop will execute?
```
int counter = 1;
do
{
   System.out.println(counter);
}
while (counter++ < 5);
```

   A) 4
   B) 5
   C) 6
   D) Infinite time

3. How many times the following loop will execute?
```
int counter = 6;
do
{
   System.out.println(counter);
}
while (counter++ < 5);
```

   A) 1
   B) 2
   C) 5
   D) 6

4. How many times the following loop will execute?

```
for (int i = 5; i > 10; i++)
    System.out.println(i);
```

A) 0
B) 1
C) 5
D) Infinite time

5. What will be the final value of x and y at the end of code snippet?
```
int  x = 2, y = 10;
for (int i = 1; i < 5; i++)
    x++; y++;
```

A) x = 6, y = 14
B) x = 6, y = 11
C) x = 5, y = 11
D) x = 5, y = 14

6. Given the following code snippet:
```
int  j = 1, k = 2;
while (++k < 5)
    j *= k;
```

Which of the following statement is true?

A) The output will be 1 and the loop will execute 0 time
B) The output will be 3 and the loop will execute 1 time
C) The output will be 12 and the loop will execute 2 times
D) The output will be 60 and the loop will execute 3 times

7. How many times the following loop will execute?
```
for (int i = 1; i <= 6; i++)
    for (int j = 1; j <=6; j++)
        System.out.println("Loop");
```

A) 6
B) 25
C) 36
D) 49

8. How many times the following code snipped will display "Loop"?
```
for (int i = 1; i <= 3; i++)
    for (int j = 1; j <=3; j++);
        System.out.println("Loop");
```

A) 1
B) 3
C) 9
D) 10

9. Which of the following statement is correct?
   A) A for loop always executes once
   B) A while loop always executes once
   C) A do-while loop always executes once
   D) All loops always execute once

10. A loop that never terminates is:
    A) A null loop
    B) A for loop
    C) An empty loop
    D) An infinite loop

11. Which of the following statement is correct?
    A) A while loop is entry-controlled whereas do-while is exit-controlled
    B) A do-while loop is entry-controlled whereas while is exit-controlled
    C) Both while and do-while are exit-controlled
    D) Both while and do-while are entry-controlled

12. Which of the following statement is not true?
    A) To execute a do-while loop the condition must be true when entering the loop
    B) To execute a while loop the condition must be true when entering the loop
    C) To execute a for loop the condition must be true when entering the loop
    D) All are true

13. Which of the following for loops will cause the body of the loop to be executed 5 times?
    A) for (int i = 5; i > 1; i--)
    B) for (int i = 1; i < 5; i++)
    C) for (int i = 0; i < 5; i++)
    D) for (int i = 0; i <= 5; i++)

14. Which of the following is not a jump statement in Java?
    A) continue
    B) break
    C) jump
    D) return

15. Which of the following is an empty loop?
    A) do {i++;} while (i < 5);
    B) while (i < 5) i++;
    C) for (i = 0; i < 5; i++);
    D) None of the above